

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 04 SEP 2006

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PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:
RAMYAR M. FARID
MCDERMOTT WILL & EMERY LLP
600 13TH STREET, NW
WASHINGTON, DC 20005-3096

Date of mailing
(day/month/year) **01 SEP 2006**

Applicant's or agent's file reference

FOR FURTHER ACTION

See paragraph 2 below

71871-012

International application No.

International filing date (day/month/year)

Priority date (day/month/year)

PCT/US05/41576

16 November 2005 (16.11.2005)

23 November 2004 (23.11.2004)

International Patent Classification (IPC) or both national classification and IPC

IPC: **G06Q 10/00(2006.01)**

USPC: 705/9

Applicant

IRAD CARM

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

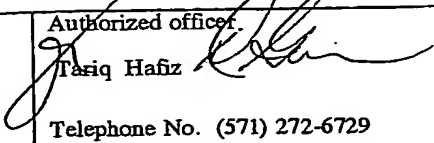
2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

<p>Name and mailing address of the ISA/ US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450</p>	<p>Date of completion of this opinion 09 July 2006 (09.07.2006)</p>	<p>Authorized officer  Tariq Hafiz Telephone No. (571) 272-6729</p>
<p>Facsimile No. (571) 273-3201</p>		

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Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
- ☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper
- ☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
- ☐ filed together with the international application in electronic form.
- ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

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Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Claims 7,8,14,17,23,26 YES

Claims 1-6,9-13,15-16,18-22,24-25,27 NO

Inventive step (IS)

Claims NONE YES

Claims 1-27 NO

Industrial applicability (IA)

Claims 1-27 YES

Claims NONE NO

2. Citations and explanations:

Please See Continuation Sheet

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the questions whether the claims are fully supported by the description, are made:

The drawings are objected to under PCT Rule 66.2(a)(iii) as containing the following defect(s) in the form or content thereof:
Reference characters "A" (in Figure 1) and "4" (in the specification) have both been used to designate statistics engine.
Reference characters "B" (in Figure 1) and "5" (in the specification) have both been used to designate pattern repository.
Reference characters "C" (in Figure 1) and "6" (in the specification) have both been used to designate ETA generator.
Reference characters "D" (in Figure 1) and "7" (in the specification) have both been used to designate scheduler.
Reference characters "E" (in Figure 1) and "8" (in the specification) have both been used to designate notification engine.
Reference characters "F" (in Figure 1) and "9" (in the specification) have both been used to designate communication gateway.
Reference characters "S38" (in Figure 3) and "S4" (in paragraph 55 of the specification) have both been used to designate the step of Applying EAC to ETA.

The drawings are objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 7 because:

The drawings are objected to because reference character "S4" has been used to designate both the step "Apply EAC to ETA" (paragraph 55 of the specification) in Figure 3 and the step "Determine ETA For Each Appt." (Figure 2).

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

V. 2. Citations and Explanations:

Claims 1-6, 9-13, 15-16, 18-22, 24-25, and 27 lack novelty under PCT Article 33(2) as being anticipated by Kagami (PGPub 2002/0019755).

As per claim 1, Kagami teaches an apparatus for managing appointments between a customer and a service provider comprising:

(a) a communication gateway which receives and delivers communications (enabling beauty salon appointments to be made using communication means such as the internet; the beauty salon appointment scheduling system is contemplated for use with either data communication means such as the internet in conjunction with a computer capable of connecting to the data communication means and exchanging data, or with portable terminals or portable telephones having a data communication function) [Paragraphs 7, 17];

(b) a microprocessor that schedules appointments of a customer with a service provider {beauty salon} based on a communication from a customer (when a customer makes an appointment request, the appointment request is sent directly to the central processing means; receiving an appointment request for a beauty salon from a customer through data communication means), business rules of a service provider (when an appointment request from a customer does not designate a stylist, a stylist with whom to make an appointment is selected according to a set of rules which are preset for the system) and a statistical determination of characteristics of a requested appointment (a method of making appointments in the order of stylists who were designated the most in a standard period of time can be used; it is possible to obtain statistical information which is useful for management of the beauty salons based on the stored past appointment request data, such as the relationships between number of appointments, day of the week, day of the month, time period, type of work performed, stylist, beauty salon and/or customer, which could render such information as what time periods are relatively less busy or which stylist does which type of work most often) [Paragraphs 8, 9, 24, 34, 47].

Claims 10 and 19 recite limitations already addressed by the rejection of claim 1 above; therefore, the same rejection

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applies.

As per claim 2, Kagami teaches the apparatus of claim 1, further comprising a statistics engine, and wherein the statistical determination of characteristics of a requested appointment include information indicative of performance of the service provider based on at least one of: historical performance patterns, a type of service requested during the requested appointment, geographic location of the customer or the service provider, time of day, time of year, weather, skills of the service provider, or automobile traffic conditions (it is possible to obtain statistical information which is useful for management of the beauty salons based on the stored past appointment request data, such as the relationships between number of appointments, day of the week, day of the month, time period, type of work performed, stylist, beauty salon and/or customer, which could render such information as what time periods are relatively less busy or which stylist does which type of work most often) [Paragraph 47].

Claims 11 and 20 recite limitations already addressed by the rejection of claim 2 above; therefore, the same rejection applies.

As per claim 3, Kagami teaches the apparatus of claim 1, further comprising a notification engine which provides a predetermined notification to the customer related to an appointment {the system asks the customer to enter an address by which the customer can be reached via data communications, after which the customer is sent a confirmation message of scheduled appointments} [Paragraph 39].

As per claim 4, Kagami teaches the apparatus of claim 3, wherein the predetermined notification includes a reminder to the customer of an appointment (it is also possible to have the beauty salon remind the customer when the data and time of the appointment are approaching, by using the data communication means to communicate with the customer) [Paragraph 28].

As per claim 5, Kagami teaches the apparatus of claim 3, wherein the predetermined notification includes a notification of a change in an appointment schedule (when the progress of work at a salon necessitates a change in the appointment schedule, the customer may be sent notifications of the approximate waiting time or requests to change the appointment time) [Paragraph 28].

Claims 12 and 21 recite limitations already addressed by the rejection of claim 5 above; therefore, the same rejection applies.

As per claim 6, Kagami teaches the apparatus of claim 1, wherein the microprocessor determines if a delay occurs in a schedule of appointments and determines if the delay will propagate to affect other appointments (when the progress of work at a salon necessitates a change in the appointment schedule, the customer may be sent notifications of the approximate waiting time or requests to change the appointment time) [Paragraph 28].

Claims 13 and 22 recite limitations already addressed by the rejection of claim 6 above; therefore, the same rejection applies.

As per claim 9, Kagami teaches the apparatus of claim 1, wherein the microprocessor selects a service provider from a plurality of service providers for an appointment based on the historical performance patterns of the plurality of service providers (a method of making appointments in the order of stylists who were designated the most in a standard period of time can be used) [Paragraph 34].

Claims 15 and 24 recite limitations already addressed by the rejection of claim 9 above; therefore, the same rejection applies.

As per claim 16, Kagami teaches the method of claim 10, further comprising the steps of prompting customers to respond to automated messages confirming an appointment and applying a response of the customer to an existing appointment schedule (upon receiving a customer address from a customer without an identification number, the customer is asked to confirm an appointment by return communication when sending the customer information about the appointment, and then retain the appointment if this appointment is confirmed within a predetermined period of time, but cancel the appointment if it is not confirmed within the predetermined period of time) [Paragraph 19].

Claim 25 recites limitations already addressed by the rejection of claim 16 above; therefore, the same rejection applies.

As per claim 18, Kagami teaches the method of claim 10, further comprising the steps of monitoring a plurality of field service personnel associated with the service provider in providing a requested service, providing continuously updated statistical evaluation of field service personnel activities, and indicating performance of a service of each field service personnel (it is possible to obtain statistical information which is useful for management of the beauty salons based on the stored past appointment request data, such as the relationships between number of appointments, day of the week, day of the month, time period, type

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In case the space in any of the preceding boxes is not sufficient.

of work performed, stylist, beauty salon and/or customer, which could render such information as what time-periods are relatively less busy or which stylist does which type of work most often) [Paragraph 47, Claim 11].

Claim 27 recites limitations already addressed by the rejection of claim 18 above; therefore, the same rejection applies.

Claims 7-8, 14, 17, 23, and 26 lack an inventive step under PCT Article 33(3) as being obvious over Kagami in view of Bansal et al. (U.S. Patent #6,898,569).

As per claim 7, although not explicitly taught by Kagami, Bansal et al. teaches the apparatus of claim 6, wherein the determination if a delay will propagate is based on a type of appointment of the requested appointment, a type of delay of the delay, or a statistical determination of delay propagation based on historical information related to the requested appointment (determine the user's location by connecting a Global Positioning System receiver to the user's access device of vehicle. The GPS receiver may pinpoint a geographic location and also calculate the user's speed and direction of travel, information that may then be used by the scheduling unit to determine if the user will be late for the appointment; mapping database may include information about whether various roads are highways, country roads, city roads, etc., which may be used by the scheduling unit to adjust the estimated time of arrival; environment information, such as traffic and weather information is received at step 520. It may then be determined at step 530 if the user is currently going to be late for the meeting based on, for example: the scheduling and environment information, the current time, and user profile information) [Column 5, lines 59-67, Column 6, lines 16-20, 23-28, 33-35, 47-52].

Both Kagami and Bansal et al. are directed towards scheduling service appointments using communication environments. Kagami teaches the step of notifying users of delays or cancellations in scheduled service appointments. Bansal et al. teaches the step of determining whether users will be late for appointments and determining the length and type of delay. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Kagami to include the step of determining causes of delays because the resulting combination would enable early notification to customers scheduled to have appointments with a service provider, who may reduce time "wasted" while waiting for the service provider that may otherwise be used performing other tasks.

As per claim 8, although not explicitly taught by Kagami, Bansal et al. teaches the apparatus of claim 7, wherein the statistical determination is based on at least one of duration of appointment, start of appointment, or end of appointment.

Bansal et al. determines whether the user will be late for a scheduled appointment based on the user's present location (Suppose the user has scheduled a 10:00 am appointment in Washington, D.C., the user is currently 100 miles away from Washington at 9:00 am, and the scheduling unit 300 has been configured to assume that the user travels at 50 miles per hour. Here, the user's estimate time of arrival will be 9:00 am + (100 miles/50 mph), or 11:00 am. Thus, the scheduling unit 300 can either (1) assume the user will be late and prepare and/or send the notifications as required or (2) tell the user how far away he or she currently is from the appointment and ask the user if the messages should be prepared and/or sent to the attendees.) [Column 5, lines 16-26]. This determination is based upon the user's present location and the start of the scheduled appointment, thus meeting the limitation of the claim.

Both Kagami and Bansal et al. are directed towards scheduling service appointments using communication environments. Kagami teaches the step of notifying users of delays or cancellations in scheduled service appointments. Bansal et al. teaches the step of determining whether users will be late for appointments and determining the length and type of delay. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Kagami to include the step of using statistical information to determine appointment delays based on the duration, start, or end of appointments, because the resulting combination would enable early notification to customers scheduled to have appointments with a service provider, who may reduce time "wasted" while waiting for the service provider that may otherwise be used performing other tasks.

As per claim 14, although not explicitly taught by Kagami, Bansal et al. teaches the method of claim 13, wherein the step of determining if the delay will propagate includes determining one of: whether the service is repetitive, whether the delay was caused by a global problem, or whether the delay is likely to propagate based on historical information indicative of characteristics of the appointment (mapping database may include information about whether various roads are highways, country roads, city roads, etc., which may be used by the scheduling unit to adjust the estimated time of arrival; environment information, such as traffic and weather information is received at step 520. It may then be determined at step 530 if the user is currently going to be late for the meeting based on, for example: the scheduling and environment information, the current time, and user profile information) [Column 5, lines 59-67, Column 6, lines 16-20, 23-28, 33-35, 47-52].

Both Kagami and Bansal et al. are directed towards scheduling service appointments using communication environments. Kagami teaches the step of notifying users of delays or cancellations in scheduled service appointments. Bansal et al. teaches the step

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of determining whether users will be late for appointments and determining the length and type of delay. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Kagami to include the step of determining causes of delays and whether said delays will be repetitive or propagate to other scheduled appointments, because the resulting combination would enable early notification to customers scheduled to have appointments with a service provider, who may reduce time "wasted" while waiting for the service provider that may otherwise be used performing other tasks.

Claim 23 recites limitations already addressed by the rejection of claim 14 above; therefore, the same rejection applies.

As per claim 17, Kagami teaches the method of claim 10, further comprising the steps of periodically collecting statistical data indicative of the statistical determination of performance of the service provider (it is possible to obtain statistical information which is useful for management of the beauty salons based on the stored past appointment request data, such as the relationships between number of appointments, day of the week, day of the month, time period, type of work performed, stylist, beauty salon and/or customer, which could render such information as what time periods are relatively less busy or which stylist does which type of work most often) [Paragraph 47, Claim 11].

Although not explicitly taught by Kagami, Bansal et al. teaches the steps of evaluating business rules of the service provider using the statistical data, and providing optimization recommendations (the action that should be taken by the scheduling unit can be stored in the user's profile along with, for example, that speed that should be used in the determination and whether or not any "window" of time should be provided before or after the beginning of the meeting) [Column 5, lines 26-31].

Both Kagami and Bansal et al. are directed towards scheduling service appointments using communication environments. Kagami teaches the step of notifying users of delays or cancellations in scheduled service appointments. Bansal et al. teaches the step of determining whether users will be late for appointments and determining the length and type of delay. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Kagami to include the step of evaluating service rules of the service provider and provide optimization recommendations, because the resulting combination would result in a dynamic policy regarding delayed appointments, by dynamically redefining the metric used to determine the tardiness of users, and the threshold at which customers are notified of "late" users in order to minimize customer inconvenience and "wasted" time by providing advance notice of delays to scheduled appointments.

Claim 26 recites limitations already addressed by the rejection of claim 17 above; therefore, the same rejection applies.

Claims 1-27 meet the criteria set forth in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry..